What is claimed is:

1. A method of purifying a protein of interest from its fusion analog, said method comprising:
   a. Obtaining a protein solution comprising the protein of interest and its fusion analog;
   b. Adjusting the pH and/or ionic strength of the protein solution with an appropriate buffer for the HCIC resin used in step c;
   c. Contacting the protein solution with an HCIC resin column for a time sufficient to allow binding of the protein of interest and its fusion analog to the resin;
   d. Washing the HCIC resin with an appropriate buffer;
   e. Eluting the protein of interest from the HCIC resin by a pH gradient;
   wherein said protein of interest is substantially free of its fusion analog.
2. The method of claim 1 wherein the protein solution is a fermentation broth.
3. The method of claim 1 wherein the broth is clarified.
4. The method of claim 1 wherein the protein of interest is secreted.
5. The method of claim 1 wherein the protein of interest is selected from the group consisting of an enzyme, a peptide concatamer, a hormone, a growth factor, a receptor, vaccine, an immunoglobulin and fragments of any of the foregoing.
6. The method of claim 1 wherein the protein of interest is an immunoglobulin or fragment thereof.
7. The method of claim 6 wherein the immunoglobulin is a monoclonal antibody.
8. The method of claim 6 wherein the immunoglobulin is a $F(ab')_2$ fragment.
9. The method of claim 6 wherein the immunoglobulin is a Fab' fragment.
10. The method of claim 1 wherein the protein of interest is an enzyme.
11. The method of claim 1 wherein the fusion analog thereof comprises at least one glucoamylase protein covalently linked to the amino terminus of said protein of interest.
12. The method of claim 11 wherein there may be between one and four glucoamylase proteins attached to said immunoglobulin.
13. The method of claim 1 wherein the protein of interest is a fragment of an immunoglobulin.

14. The method of claim 1 wherein the pH gradient begins at a pH of about 8 and ends at a pH of about 2.5.

15. The method of claim 1 wherein the pH gradient begins at a pH of about 2.5 and ends at a pH of about 8.

16. The method of claim 1 wherein the pH gradient comprises a step pH gradient.

17. The method of claim 16 wherein the step pH gradient comprises between two and six steps.

18. The method of claim 1 further comprising size exclusion chromatography.

19. The method of claim 1 further comprising protein A chromatography.

20. The method of claim 1 in which binding and elution are done in a batch process.

21. The method of claim 1 in which the HCIC resin is in a packed column.

22. The method of claim 18 in which the HCIC resin is in an axial flow column.

23. The method of claim 18 in which the HCIC resin is in a radial flow column.

24. The method of claim 1 in which the HCIC resin is in an expanded bed column.

25. A method of purifying an immunoglobulin, said method comprising:
    a. Obtaining a protein solution comprising the immunoglobulin;
    b. Adjusting the pH and/or ionic strength of the protein solution with an appropriate buffer for the HCIC resin used in step c;
    c. Contacting the protein solution with an HCIC resin for a time sufficient to allow binding of the immunoglobulin to the resin;
    d. Washing the HCIC resin of an appropriate buffer;
    e. Eluting the immunoglobulin from the HCIC resin by a pH gradient.